

January 12, 2007

VIA HAND DELIVERY & ELECTRONIC MAIL

Luly E. Massaro, Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

RE: Docket 3788 – Annual Retail Rate Filing
Response to Commission Record Request 3

Dear Ms. Massaro:

Enclosed please find ten (10) copies of National Grid's response to Commission Record Request 3, which is the last record request issued at the evidentiary hearing on December 14, 2006, in the above-captioned proceeding.

Thank you for your attention to this filing. If you have any questions, please feel free to contact me at (401) 784-7667.

Very truly yours,



Laura S. Olton

Enclosures

cc: Docket 3788 Service List
Paul Roberti, Esq.
Steve Scialabba, Division

Record Request 3

Request:

Please review the article appearing in the New York Times on December 13, 2006 (attached) regarding PJM congestion and provide an analysis comparing the situation to New England.

Response:

Congestion is also a concern for some customers in New England, especially those customers in the NEMA/Boston and Southwest Connecticut regions. Rhode Island has not been adversely affected by congestion. Congestion can and does occur in other localized areas of New England where local loads exceed the capability of local transmission facilities or where generator outages result in the need for increased localized transmission during the outage.

New England has many transmission projects planned or in progress to reduce/resolve congestion as well as improve regional reliability (see Exhibit Narragansett 1-C, Schedule MPH-7). Installation of new generation can also lead to the reduction of congestion. New England has a locational based pricing system that sends price signals to the market that are intended to encourage the building of new plants within a congested area.

NEPOOL also has a formal transmission planning process. Each year a regional system plan is developed by ISO-NE with input from stakeholders. This process results in an annual planning report that determines resource and transmission facilities needed to maintain reliable and economic operation of New England's bulk electric power system over a ten-year horizon.

Through careful study and monitoring, proactive planning and infrastructure investment (both transmission and generation), New England is attempting to minimize the impact of congestion within the region and the costs that it brings to customers.

December 13, 2006

POWER PLAY

Grid Limitations Increase Prices for Electricity

By [DAVID CAY JOHNSTON](#)

CHAMBERSBURG, Pa. — It is a tiny, flickering signal of an expensive problem looming for tens of millions of Americans: The cost of electricity for households in this southern [Pennsylvania](#) town soared this year by 31 percent, or an average of \$24 a month.

Like the nation's highways and bridges, the network of transmission lines has not been maintained and expanded enough to meet growing demand, the [United States Department of Energy](#) says. In areas where there are not enough lines to transmit electricity from the most efficient generating stations, utilities must find other sources. Sometimes they have to buy from costlier power plants nearby, like drivers forced by highway bottlenecks onto slower side roads.

The problem already affects about 40 million people from metropolitan New York to Virginia as well as 18 million in Southern California. Similar but smaller price increases will hit New England, the San Francisco Bay Area and the Seattle-Portland and Phoenix-Tucson corridors until new transmission lines are built.

These higher costs, known as congestion charges, added \$5.7 million to the cost of electricity in Chambersburg this year, which the borough has paid from a reserve fund rather than apply them directly to utility bills.

Over all, the Energy Department estimates, congestion charges in 2008 will add \$8 billion or so — about \$40 a person — to electricity costs on the Eastern grid, which serves almost 200 million people east of the Rockies except for Texas. The department did not make an estimate for the Western grids.

These congestion charges would raise electricity prices by about a nickel on the dollar if they were spread evenly, but in fact some customers pay far more and others pay nothing.

Sometimes there is disagreement on how to measure congestion charges. The Energy Department estimates these charges for New York residents in the New York City area at

almost \$90 each last year, while the operators of the electricity network for the state say the cost was about \$8. The extra charges could continue for years, because building new transmission lines can take at least a decade.

The congested transmission network has frustrated the many who supported the opening of the electricity industry to competition a decade ago, hoping that prices would fall. Under the old system, regulated monopolies made and delivered power in their own area, with only small sales outside. The new system is intended to encourage a competitive business in which power is distributed over vast regional networks.

But for electric prices to fall, the network must be able to move power from the lowest-cost plants to where it is needed, utility industry experts said.

“Fully competitive markets and the tremendous added value that could be provided to customers have been stalled” by a transmission network that is too small and was not designed for competitive markets, three executives of National Grid, an electricity distribution company, wrote last year in *The Electricity Journal*.

The North American Electric Reliability Council, which works to improve the network, echoed the comments of many industry leaders in declaring that “a robust, reliable transmission system is needed to develop a competitive market” that can save customers money.

Investment in the network has been falling for three decades. For each dollar spent on the network in the 1970s, spending, adjusted for inflation, is only 75 cents today. Independent power producers say transmission would attract more investment if profits were not regulated, while municipal power agencies and other critics of making electricity a competitive business assert that inadequate investment in new lines is inevitable because it increases profits for power plant owners.

The Energy Policy Act signed by President Bush last year seeks to speed construction of transmission lines by preventing state and local officials from blocking lines, or even influencing where they are built.

A federal proposal to invoke these restrictions for a proposed high-voltage line through the Allegheny Mountains in Virginia has generated hundreds of complaints. Business owners, local officials and refugees from big cities said it would be irresponsible to mar their mountain vistas and small towns with a row of 17-story steel skeletons supporting the lines.

Protests are also expected against proposed transmission lines from two nuclear plants in

Arizona to Southern California and against a 1,000-mile line that Arizona Public Service plans so it would be able to cool Phoenix with electricity from wind farms and coal-fired plants in Wyoming.

Most transmission lines are owned by utilities, but operational control has been turned over to independent organizations from Maine south to Virginia and west to the Dakotas and Texas, plus California. In other areas, utilities control the lines, and independent power producers have complained that the utilities favor their own plants even if their electricity is more expensive.

When congestion charges force electric customers to pay more, many owners of power plants profit. They do so because, in many states, every power plant gets the same price as the highest bid accepted from any plant chosen to supply power. As utilities turn to less efficient, more expensive plants, the price paid to every other electricity producer rises.

The high-cost plants that must be fired up when there is a bottleneck operate for more hours than they would if the network were designed for the competitive market. In some cases, expensive plants built just to meet peak demand, as on hot summer days, now run 40 percent of the year, Energy Department reports show.

Most of these plants generate electricity from modified jet engines that burn natural gas, which is more expensive than electricity from coal or nuclear plants. But congestion has become so chronic that some century-old and very inefficient steam turbines must also be operated to avoid blackouts.

Another important sign of worsening congestion is a sharp increase in requests by network operators to prevent overloads that could disrupt transmission on the PJM Interconnection, the network serving 51 million people from New Jersey to Illinois. There were 2,397 such requests last year, up from just 50 in 2004.

Most electric customers have no way of knowing how much their bills have risen because of this problem. While the big industrial customers get detailed price information, smaller customers are largely in the dark. Congestion charges generally are not broken out as a separate item on their bills.

Indeed, hardly anyone here even knows that electric bills have soared, because the borough government has so far covered the costs from a reserve fund, now almost empty.

The average household in Chambersburg pays \$78 a month for electricity.

Audrey A. Zibelman, chief operating officer of the PJM electricity network, to which Chambersburg belongs, said the town's congestion charges should end in 2008 when Allegheny Power completes an upgrade of a transformer station that serves Chambersburg.

Just who pays more for congestion and who does not has become a burning question in places like Chambersburg. The method the networks use to determine prices for each customer is so complicated that hardly anyone understands it.

Indeed, the town spent about \$1 million this year just on lawyers and consultants to try to ensure that it got a fair deal.

"The more rules, the more complicated it gets, the more we have to make sure we aren't missing something in the overwhelming amount of documents from PJM that costs us a lot of money," said Richard E. Hamsher, the electricity superintendent for Chambersburg.

The town and other municipal utilities joined the PJM network, which serves 13 states, early in this decade. They complained about the congestion charges to the [Federal Energy Regulatory Commission](#), arguing that they had contracted for access to power and that their own demands for power had not grown much.

PJM said the problem arose because of its expansion to more Midwestern states. Charges in the newly expanded network were allocated in a different way, hurting towns like Chambersburg.

Ms. Zibelman of the PJM network said the Chambersburg complaint was based on the faulty assumption that what the town pays should be based only on prices from the power plant in West Virginia from which it buys power. "You are not using a piece of the system, you are using the entire system," she said, sharing in both its savings and its costs.

The commission dismissed the complaint on Nov. 22. It decided that PJM had applied the rules properly but also said the distribution network should discuss with its members whether to revise its rules.

Mr. Hamsher is not pleased. "Our customers lose," he said, "and the people east of here who buy electricity got the benefit at our expense."

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Certificate of Service

I certify that a copy of the cover letter and materials accompanying this certificate were mailed or hand-delivered to the individuals listed below.



Joanne M. Scanlon
National Grid

Date: January 12, 2007

Annual Reconciliation Rate Filing – Docket No. 3788
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